

# Text Amendment TA20-0003 – Retaining Walls

6/3/2020

## Introduction

This proposed amendment TA20-0003, is largely a framework amendment, but also includes significant clarification and some considerably substantive changes to retaining wall requirements found in Sec. 9.4.3. of the Development Code. While many practical changes are proposed, the initial impetus for the review and amendment was to reconcile building code height requirements with the Sandy Springs Development Code as it pertains to retaining walls.

In the building code adopted by the City of Sandy Springs, IBC 2018, Sec. 105.2 (4), retaining wall height is measured from “bottom of footing to the top of the wall.” This approach is what we consider a measurement of the structure. The current Development Code prescription for measurement, to determine max height and max height without a permit being required, only measures the exposed height (neglecting any subterranean component, such as a footing).

With the review of the height definition(s), staff from each division of Community Development came together to offer their input and particular expertise with regards to retaining walls.

For an explanation of all of the changes to the framework or structured layout of Sec. 9.4.3. of the Development Code, see the following:

## Structure Change Report:

1. The current seven (7) section (A-G) layout of Sec. 9.4.3. would become four (4) sections (A-D)-
  - a. This is because two (2) of the sections (B. Measurement and F. Materials) would be inserted into and become subsections of Section A (Design)
  - b. The third section that would effectively be removed, through consolidation is Sec. E. “In All Other Districts” (this will be elaborated on further in the Content Report below)
2. Current Section C. “Maintenance and Replacement” becomes Section D. of the same name.
3. Current Section D. “In RE-, RD- and RU-Districts” becomes Section C. under the new name, “Setback Encroachment.”
4. Current Section G. “Permits and Indemnification” becomes Section B. under the updated name, “Permits and *Other Requirements*.”

## Structural Change Visual:

### Current

- A. Design
- B. Measurement (Now subsection in A.)
- C. Maintenance and Replacement (Now in D.)
- D. In RE-, RD- and RU- Districts (Now C. Setback Encroachment)
- E. In All Other Districts (Removed (8' max proposed in all districts))
- F. Materials (Now subsection in A.)
- G. Permits and Indemnification (Now B., slight name adjustment)

### Proposed

- A. Design
- B. Permits and Other Requirements
- C. Setback Encroachment
- D. Maintenance and Replacement

For an explanation of all of the fundamental changes to Sec. 9.4.3. of the Development Code, see the following:

### Content Change Report:

#### 1. In Section A of Sec. 9.4.3:

~~"1. Applicants are encouraged to use building foundations as retaining walls to retain slopes. There is no limit on the height of building foundation walls serving as retaining walls, provided the resulting building does not exceed the district height standards" is removed.~~

This is for a couple of reasons. **One**, this initial suggestion about foundation walls is largely covered later in the retaining wall code under wing walls. **Secondly**, while Sec. 9.4.3.1. sets no limit on wall height as a part of foundation walls serving as retaining walls, the other section (Sec. 9.4.3.D.3.c.) sets the limit at 12'. This is another conflict staff often finds when determining maximum heights.

2. Section 9.4.3.A "Design," incorporates new (formerly Sec. B. Measurement) Subsection "a. Measurement." Within this subsection, the two types of height for which disclosure on plan review is required is clarified: Structure Height (bottom of footing to top of wall) and Exposed Height (finished grade to top of wall). This helps clarify maximum height and when permits are required in following sections.

#### 1. Height

##### a. **Measurement** Total retaining wall height is considered to be:

- i. **Structure Height (Building Code)**– The vertical distance measured from the bottom of the footing to the top of the wall at the same section.
- ii. **Exposed Height (Zoning Code)**– The vertical distance measured from finished grade at the bottom of the front (exposed) side of the wall to the top of the wall at the same section.

3. New subsection 9.4.3.A.1.b., “Maximum Height” is created. It is largely derived from two former sections and subsections: Sec. 9.4.3.D.3. and Sec. 9.4.3.E. One of the other proposed changes in this amendment is the proposal to allow retaining walls to be 8’ max regardless of zoning district. The belief is that freestanding walls and fences have a max height of 8’ regardless of zoning district as well. Staff is of the opinion that 8’ is a very realistic and common height found in most moderate developments. Beyond max height, tiered retaining walls are again required, at the new maximum of 8’.

**b. Maximum Height**

- i. **Retaining Walls** Up to eight (8) feet in exposed wall height as a single wall.
- ii. **Retaining Walls** Over eight (8) feet in exposed wall height requires tiered retaining walls (each not to exceed eight (8) feet in exposed wall height).

- a. Maximum height for interior facing retaining walls is proposed at 12’ for the same reasoning interior facing wing walls are allowed up to 12’. Additionally, wing wall length is given a maximum of 36’ to more closely reflect the maximum grading slope of 3 to 1. Staff often has difficulty in determining when the wing wall allowance is being applied correctly.

- iii. **Interior Facing** Retaining walls that are entirely interior facing are permitted up to 12 feet in height. This includes Wing Walls (retaining wall extensions from the building foundation walls that allow daylighting of a basement and/or egress from a basement) that are inward facing and finished with a permitted material finish.

1. **Setbacks** If they are to encroach into building setbacks and are entirely inward facing the walls have to be a maximum of eight (8) feet in exposed wall height and meet the retaining wall setback requirements found in Sec. 9.4.3.C. below.

2. **Length** Maximum length of any Wing Wall exceeding the normal maximum retaining wall height of eight (8) feet is 36 feet (based on the maximum 3:1 allowable grading slope). Any length of wall past 36 feet shall meet the requirements of a retaining wall as outlined above.

4. Elevation Marks” is added as a subsection. This addition is to help developers properly prepare their plans for review, beforehand, in particular their grading plan.

**c. Elevation Marks** Wall height elevations marks shall be demonstrated on the grading plan through callouts at various locations along the retaining wall using the following or similar: TW-Top of Wall; BW-Bottom of Wall (at Grade); BF-Bottom of Footing.

5. Section 9.4.3.A.2. with a name enhancement to “Sec. 9.4.3.A.2. Spacing.”
6. Section 9.4.3.A.3. “Materials,” formerly Section 9.4.3.F., receives the following amendments:
  - a. Modular block that is prohibited is called out as any that is beveled, whereas before staff would need to run the material by the Director for approval. It became clear that only beveled modular block tended to be prohibited. This edit would remove the need for Director approval. This saves staff time and also the applicant, in the review process.
  - b. Similarly, concrete masonry units would no longer be prohibited so long as they are neither plain nor unfinished, but designed so as to look like the required natural stone or brick look.
  - c. Lastly, crossties, railroad ties, or similar lumber applications are allowed in what is later described as “Garden Wall” applications.

### 3. Materials

- a. **Material and Finish** All retaining walls must be finished with stucco, brick, or stone. No beveled modular block, plain unfinished concrete masonry units, or other similar materials are allowed. Retaining walls which meet the description of Garden Walls below in Sec. 9.4.3.B.3. may also use crossties, landscape timbers, or similar as a wall, material finish.

7. **In Sec. B. of 9.4.3:** The immediate subsections are clarified as to which retaining walls need permits. All retaining walls with a surcharge, regardless of height is made clear at the very beginning. Further, structure height of greater than 4' (matching building code) is now clarified to show requirement of permit. Clarification on what retaining walls do not need a permit is also clarified as 4' or less in structure height, which includes "Garden Walls" which are described as 3' in exposed height (max) while still meeting the 4' or less in structure height and not supporting a surcharge.

**B. Permits and Other Requirements**

1. **All Retaining walls**, whether in commercial or residential settings, regardless of height:  
Require a retaining wall permit and a professional engineer's certification of the design of the wall *if they support a surcharge*.  
Surcharge is defined as any vertical load imposed on the retained soil that may impose a lateral force in addition to the lateral earth pressure of the retained soil. Examples of surcharges include:
  - a. Sloping retaining soil;
  - b. Structure footings supported by the retained soil;
  - c. Adjacent vehicle loads supported by the retained soil.
  - d. Tiered retaining wall systems.
2. **Permit Required** All retaining walls over four (4) feet in *structure height* require a retaining wall permit and a professional engineer's certification of the design of the wall.
3. **No Permit Required** All other retaining walls four (4) feet or less in *structure height* do not require a permit but do require an indemnification letter. This includes retaining walls otherwise known as "Garden Walls" which for the purposes of this code have a maximum exposed height of three (3) feet, while also not exceeding four (4) feet of *structure height*.

8. **In Sec. C. (Setback Encroachment) of 9.4.3:** Former Section D. "In RE-, RD- and RU- Districts," is now placed. The subsection 9.4.3.C.1.d and 2.d. is inserted to clarify retaining walls are allowed in setbacks in all other districts.

**Public Hearings**

Planning Commission: June 17, 2020

Mayor and Council: July 21, 2020

**Public Comments**

Comments and suggestions are welcome. They can be submitted via email at [pz@sandyspringsga.gov](mailto:pz@sandyspringsga.gov).